

COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Southwest Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

General Dynamics-Armament and Technical Products, Inc.
325 Brunswick Lane - Marion, Smyth County, Virginia
Permit No. SWRO10050

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, General Dynamics – Armament and Technical Products, Inc. has applied for a Title V Operating Permit for its Marion – Plant 1 facility. The Department has reviewed the application and has prepared a Title V Operating Permit.

Engineer/Permit Contact:_____

Date:_____

Air Permit Manager:_____

Date:_____

Deputy Regional Director:_____

Date:_____

FACILITY INFORMATION

Permittee

General Dynamics-Armament and Technical Products, Inc.
150 Johnston Road
Marion, VA 24354

Facility

General Dynamics-Armament and Technical Products, Inc., Marion Operations, Plant 1
325 Brunswick Lane
Marion, VA 24354

County-Plant Identification Number: 51- 173-00001

SOURCE DESCRIPTION

NAICS Code: 332311 – Fabricated metal buildings
336412 – Aircraft engines and engine parts
336413 – Aircraft parts and auxiliary equipment NEC
336419 – Guided missile and space vehicle parts
336992 – Military Armored Vehicle, Tank, and Tank Component Manufacturing

General Dynamics-Armament and Technical Products, Inc. has an aerospace and metal shelter product manufacturing operation that includes the fabrication and assembly of a variety of military and commercial items. The company also fabricates armor plate for military vehicles. The operations include the application of many coatings, resins, adhesives, fillers, or cleaners by several different methods, such as spray coating, brushing, chemical conversion, troweling, rolling, etc. Most of the operations are labor intensive, and involve many fabrication/assembly steps.

The facility is a Title V major source of hazardous air pollutants (HAPs). This source is located in an attainment area for all pollutants. The facility was previously permitted under a Minor NSR permit issued on September 20, 2005.

COMPLIANCE STATUS

A full compliance evaluation of this facility, including a site visit, was completed on August 31, 2006. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility consist of the following :

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Fuel Burning Equipment							
18	18	Cleaver Brooks Model D-68 gas/oil boiler – 1200 hp – 1972	50.2 MMBtu/hr	-	-	-	09/20/05
19	19	Cleaver Brooks Model CB-200-300 gas/oil boiler – 300 hp – 1985	12.5 MMBtu/hr	-	-	-	09/20/05
Heat Cleaning							
5	5	Bayco Model BB-56 Heat Cleaning Oven (gas fired)	116.4 lbs charged/hr	afterburner	-	PM, VOC	09/20/05
Shelter Coating Operations							
6, 7, 9, 11, 12, 13, 14, 21, 32, 33, 80	same	Shelter Primer/Coating mixing, spray booths, and drying operations	4,000 – 6,000 lb product/hr	Booths are equipped with filters	same	PM/PM10	09/20/05
Aerospace Coating Operations							
22, 23, 63, 65, 69a&b	same	Aerospace composite spray booths	4,000 lb product/hr	Booths are equipped with 2-stage filters	same	PM/PM10	09/20/05
Resin Impregnation/Prepreg Operations							
40, 41, 49, 81	same	Impregnation of fiberglass or other materials with various resins	200 lb product/hr each (#49-100 lb/hr)	----	----	----	09/20/05
Resin Transfer Molding							
96a&b, 97	same	96a&b and 97 – Tackifier Spray Booths	2 T product/hr each	Fiberglass filters (1-stage)	Same	PM/PM10	09/20/05

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
98 110		Fume Hood Sanding/Trim Booth	-- 2 T/hr	-- Fiberglass filters			
Grinding/Sanding/Routing							
20, 46, 57, 58, 61, 66, 67, FWG1- 11, CG1-9, 80, 107	same	Trimming panels, sanding and grinding of ceramic or quartz radomes	Panel trim – 600 lb product/hr sanding – 4,000 lb product/hr grinding – 200 lb product/hr	Various baghouses Including Ref#107	same	PM/PM10	09/20/05
Metal Cleaning							
1-4	same	Aluminum wash, rinse, acid wash tanks	6,000 lb product/hr	Venturi scrubbers for acid tanks	same	PM/PM10	09/20/05
Flame/Arc Spray Booth							
27	same	Flame spraying; Arc spraying	600 lb product/hr; 4000 lb/hr	Filters	same	PM/PM10	09/20/05
Armor Plate Line							
108	same	Grinding/Sealer Booth	4,000 lb product/hr each	Filters	same	PM/PM10	09/20/05
109		Sealer Booth		None		----	

EMISSIONS INVENTORY

The company reported the following emissions for 2006:

2006 Actual Emissions					
	Criteria Pollutant Emission in Tons/Year				
	VOC	CO	SO ₂	PM ₁₀	NO _x
Total	67.7	1.3	0.1	8.1	5.1

2006 Facility Hazardous Air Pollutant Emissions	
Pollutant	Hazardous Air Pollutant Emission in Tons/Yr
Total HAPs	21.3

EMISSION UNIT APPLICABLE REQUIREMENTS - #18 & #19 Cleaver Brooks boilers

Limitations

The following limitations are requirements from Conditions 12, 13, 14, 15, 16, 24, 28, 31, 34, and 36 of the Minor NSR Permit issued on September 20, 2005:

Condition 12 requires that the facility provide for testing ports as necessary.

Condition 13 limits the approved fuels to natural gas and distillate oil.

Condition 14 specifies that the sulfur content of the oil cannot exceed 0.5% by weight per shipment.

Condition 15 limits natural gas consumption to 90 million cubic feet per year.

Condition 16 limits distillate oil consumption to 105,000 gallons per year.

Condition 24 limits emissions from the boilers to

Sulfur Dioxide	32.2 lbs/hr	3.8 tons/yr
Nitrogen Oxides (NO _x)	9.0 lbs/hr	7.4 tons/yr
Carbon Monoxide	2.2 lbs/hr	1.8 tons/yr

Condition 28 limits visible emissions from the boilers to 20% opacity, except for one 6-minute period not to exceed 30% opacity.

Condition 31 requires recordkeeping of monthly and annual fuel consumption.

Condition 34 requires that notification be provided for malfunctions of processing or control equipment that may cause excess emissions for more than one hour.

Condition 36 requires maintenance schedules, spare parts inventory, written operating procedures, and operator training records for control and process equipment affecting emissions.

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-50-10 – 50 contain general requirements for proper operation, maintenance, recordkeeping, notification, and compliance.

9 VAC 5-50-80 Standard for Visible Emissions

The units are subject to an opacity limit of 20%, except for one six-minute period in any one hour not to exceed 30%.

The units are subject to emission standards outlined in 9 VAC 5-40, Article 8 in the absence of any standards from Chapter 50 of State Regulations.

9 VAC 5-40-900, Standard for Particulate Matter (PM)

Since one boiler (#18) was installed prior to 1979, by definition, it is considered a fuel burning equipment installation. The other boiler (#19) was installed after 1979, and will be examined as a unit. In the absence of a permit limitation on particulate matter emissions from the units, a standard must be determined from this section. According to 9 VAC 5-40-900 A.1.b, the installation may not emit more particulate matter than can be calculated by the formula:

$$E = 1.0906 H^{-0.2594}$$

where E is particulate emissions in lb/MMBtu and H is the heat rating of the units. The resulting particulate matter emission standards are,

$$\begin{aligned} E_{18} &= 1.0906(50.2)^{-0.2594} \text{ lb/MMBtu} = 0.39 \text{ lb/MMBtu} \\ E_{19} &= 1.0906(12.5)^{-0.2594} \text{ lb/MMBtu} = 0.57 \text{ lb/MMBtu} \end{aligned}$$

9 VAC 5-40-930, Standard for Sulfur Dioxide

Sulfur dioxide emissions are limited according to the formula

$$S = 2.64 K \quad \text{where, } S \text{ is lb/hr of SO}_2, \text{ and} \\ K \text{ is the heat capacity of the unit (MMBtu/hr).}$$

$$\begin{aligned} S_{18} &= (2.64)(50.2) = 132.5 \text{ lb/hr SO}_2 \\ S_{19} &= (2.64)(12.5) = 33.0 \text{ lb/hr SO}_2 \end{aligned}$$

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

40 CFR 63.7480-7575, Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, applied to both units. The only requirements were for initial notification, and this requirement was fulfilled. The regulation was subsequently vacated by court order. At the present time, no applicable requirements have been identified through §112(j) of the Clean Air Act.

Monitoring

The hourly emission limits from distillate oil and natural gas combustion were established based on the maximum rated capacity of the units, insuring that the likelihood of exceedance is very small as long as the unit is maintained and operated properly while processing the approved fuels. Annual emission limits were established based on the annual fuel throughput limits. Compliance with these emission limits is expected as long as the fuel throughput limits are not exceeded.

The emission factors used to develop the permitted emission limits are shown below. These factors were typical at the time the permit was written, and represent average emissions from such units. Proper operation and maintenance will insure that the emission limits are met.

Distillate Oil Combustion

Emission factors from SCC 1-02-005-02

PM 2 lb/1000 gal
SO₂ 143.6 S lb/1000 gal (S= wt% sulfur)
CO 5 lb/1000 gal
NO_x 20 lb/1000 gal

Natural Gas Combustion

Emission factors from SCC 1-02-006-02

PM 3 lb/10⁶ ft³
SO₂ 0.6 lb/10⁶ ft³
CO 35 lb/10⁶ ft³
NO_x 140 lb/10⁶ ft³

Compliance with the particulate matter standard may be demonstrated using the above emission factors and the maximum heat content of the fuels as follows:

$$(1 \text{ gal}/140,000 \text{ Btu})(2 \text{ lb}/1000 \text{ gal})(10^6 \text{ Btu}/\text{MMBtu}) = 0.014 \text{ lb}/\text{MMBtu}$$
$$(1 \text{ ft}^3/1000 \text{ Btu})(3 \text{ lb}/10^6 \text{ ft}^3)(10^6 \text{ Btu}/\text{MMBtu}) = 0.003 \text{ lb}/\text{MMBtu}$$

Based on these factors, whether combusting natural gas or distillate oil, compliance with the particulate matter standards is expected. No further monitoring or compliance determinations are required.

The NSR permit limits were established for the boilers based on the maximum capacity of each unit. The SO₂ emission limit was established using the permit limit of 0.5 wt% sulfur content of the oil. As long as this limit is complied with via fuel analysis results and recordkeeping, the emission limit will be met. Therefore, these emission limits will not be exceeded, provided the units are well maintained and operated at or below maximum capacity.

Since the units operate by combustion of pipeline quality natural gas and distillate oil, no additional monitoring is required to show compliance with the opacity limit of 20%.

The boilers employ no controls for regulated air pollutants. Therefore, compliance assurance monitoring (CAM) requirements do not apply.

Recordkeeping

The Title V permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include monthly and annual fuel consumption, fuel analyses of distillate oil shipments, hours of operation, written operating procedures, operator training, and maintenance schedules.

Testing

The Title V permit does not require source tests for these units. A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

The company is required to provide notification for malfunctions of processing or control equipment that may cause excess emissions for more than one hour. An annual compliance certification is required of all Title V permit holders.

Streamlined Requirements

The requirements of 9 VAC 5-40-930, Standard for Sulfur Dioxide, are less stringent than the emission limits included in the NSR permit. Therefore, streamlining is appropriate. The Title V permit will contain the NSR permit limits related to the use of approved low sulfur fuels. 9 VAC 5-40-930 will be cited in the Title V permit as indication that the associated standard was streamlined.

EMISSION UNIT APPLICABLE REQUIREMENTS – #5 Heat Cleaning Oven

Limitations

The following are requirements from Conditions 7, 12, 17, 26, 31, 34, and 36 of the minor NSR permit issued on September 20, 2005:

Condition 7 requires that particulate emissions be controlled by an afterburner or equivalent.

Condition 12 requires that the facility provide for testing ports as necessary.

Condition 17 requires that the oven process no more than 116.4 pounds per hour and 16.4 tons per year of metal parts.

Condition 26 limits particulate matter and PM10 emissions to 0.10 gr/dscf @12% CO₂.

Condition 31 requires that records be kept for metal parts throughput.

Condition 34 requires that notification be provided for malfunctions of processing or control equipment that may cause excess emissions for more than one hour.

Condition 36 requires maintenance schedules, spare parts inventory, written operating procedures, and operator training records for control and process equipment affecting emissions.

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-50-80 and 290 New Source Standard for Visible Emissions

The unit is subject to an opacity limit of 20%, except for one six-minute period in any one hour not to exceed 30%.

9 VAC 5-50-10 – 50 contain general requirements for proper operation, maintenance, recordkeeping, notification, and compliance.

9 VAC 5-40-750 Standard for Particulate Matter

In the absence of specific requirements in Chapter 50, the requirements of this section apply to incinerators. The unit must not emit flue gas that contains more than 0.14 gr/dscf of particulate @ 12% CO₂.

Monitoring

The monitoring requirements in Condition 31 of the NSR permit have been modified to meet Part 70 requirements.

The NSR permit specifies that the unit should be equipped with an afterburner for particulate matter control. The oven is fired with natural gas and is used to combust small amounts of residual coating from metal parts. Natural gas combustion produces negligible particulate matter emissions. Combustion of coating material should not generate significant quantities of particulate matter. The particulate matter that is generated should be adequately controlled by an afterburner operated at the manufacturer's recommended parameters. An oven with a properly operating afterburner should be capable of meeting the 0.10 gr/dscf requirement. The permit requires that the company measure the afterburner temperature and verify that it is operating in the range recommended by the manufacturer (minimum temperature of 1400 °F). The company is required to record this temperature once per batch.

The Title V permit contains a requirement to perform weekly visible emission evaluations (VEEs) on the oven stack. If visible emissions are present, a six-minute visible emission evaluation (VEE) must be performed according to 40 CFR 60, Appendix A, Method 9. If during the six minute period, any violations of the 20% opacity standard are noted, a one-hour VEE is required to demonstrate compliance with the standard. The one-hour VEE is not required if the source of excess visible emissions is corrected and returned to no visible emissions in a timely manner. This will satisfy the periodic monitoring requirement for the visible emission limitation included in the permit.

The unit is equipped with an afterburner to control particulate matter (PM₁₀) emissions. The company provided emissions estimates showing that potential pre-controlled emissions of PM₁₀ are not of a major quantity. Based on the January 13, 1994 permit analysis, uncontrolled particulate matter emissions from the unit are 41.5 tons per year. Potential pre-control emissions are smaller than this figure. Since the figure is less than 100 tons per year, CAM requirements do not apply.

Recordkeeping

The Title V permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include monthly and annual throughput of metal parts, hours of operation, visible emission evaluation results, and afterburner temperature observations.

Testing

The Title V permit does not require source tests for this unit. A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

The company is required to provide notification for malfunctions of processing or control equipment that may cause excess emissions for more than one hour. An annual compliance certification is required of all Title V permit holders.

Streamlined Requirements

The requirements of 9 VAC 5-40-750 are less stringent than the present NSR permit requirement. Therefore, the Title V permit will only reflect the particulate matter emission limit of 0.10 gr/dscf @ 12% CO₂. This limitation was established under 9 VAC 5-50-260 (BACT).

EMISSION UNIT APPLICABLE REQUIREMENTS - #40, #41, #49, #81, Resin Impregnation and Prepreg Operations

Limitations

The following are requirements from Conditions 12, 23, 31, 34, and 36 of the minor NSR permit issued on September 20, 2005:

Condition 12 requires that the facility provide for testing ports as necessary.

Condition 23 limits emissions from this operation to:

VOC	25.4 lb/hr	6.0 tons/yr
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Condition 31 requires the company to maintain records of material consumption, material MSDS information, and hourly and annual emission rates of the above pollutant.

Condition 34 requires that notification be provided for malfunctions of processing or control equipment that may cause excess emissions for more than one hour.

Condition 36 requires maintenance schedules, spare parts inventory, written operating procedures, and operator training records for control and process equipment affecting emissions.

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-50-10 – 50 contain general requirements for proper operation, maintenance, recordkeeping, notification, and compliance.

Monitoring

Since no particulate matter emissions result from this process, an opacity limit does not apply, and no visual emissions evaluations are necessary to show compliance. Compliance with VOC emission limits will be determined by calculations from consumption and VOC content of resin materials, as required by Condition 31 of the NSR permit. No further monitoring practices are required.

The process does not employ pollution control devices. Therefore, CAM requirements do not apply.

Recordkeeping

The Title V permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include material consumption, hours of operation, material MSDS information, and hourly, monthly, and annual emission rates.

Testing

The Title V permit does not require source tests. A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

The company is required to provide notification for malfunctions of processing or control equipment that may cause excess emissions for more than one hour. An annual compliance certification is required of all Title V permit holders.

Streamlined Requirements

There are no streamlining proposals for this operation.

EMISSION UNIT APPLICABLE REQUIREMENTS - #1-4 Metal Cleaning

Limitations

The following are requirements from Conditions 9, 12, 31, 34, and 36 of the minor NSR permit issued on September 20, 2005:

Condition 9 requires that acid fume emissions be controlled by a venturi scrubber.

Condition 12 requires that the facility provide for testing ports as necessary.

Condition 31 requires that records be kept to show compliance.

Condition 34 requires that notification be provided for malfunctions of processing or control equipment that may cause excess emissions for more than one hour.

Condition 36 requires maintenance schedules, spare parts inventory, written operating procedures, and operator training records for control and process equipment affecting emissions.

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-50-10 – 50 contain general requirements for proper operation, maintenance, recordkeeping, notification, and compliance.

Monitoring

The monitoring and recordkeeping requirements in Condition 31 of the NSR permit have been modified to meet Part 70 requirements.

Since no particulate matter emissions result from this process, an opacity limit does not apply, and no visual emissions evaluations are necessary to show compliance.

In order to determine that the venturi scrubber is operating properly, the company will conduct visual observations via a monitoring port to insure that water is flowing through the device. These observations will be made once per shift.

The unit is equipped with a venturi scrubber to control particulate matter (PM10) emissions. The company estimates that uncontrolled emissions from the metal cleaning operations are less than one ton per year. Emission estimates from the January 13, 1994 permit analysis have also predicted less than one ton per year of acid aerosol emissions from the operation. Because potential pre-controlled emissions of PM10 are not of a major quantity, CAM requirements do not apply to this process.

Recordkeeping

The Title V permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include hours of operation, material safety data sheets for each material used, monthly and annual material consumption, and results of visual scrubber observations.

Testing

The Title V permit does not require source tests. A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

The company is required to provide notification for malfunctions of processing or control equipment that may cause excess emissions for more than one hour. An annual compliance certification is required of all Title V permit holders.

Streamlined Requirements

There are no streamlining proposals for this operation.

EMISSION UNIT APPLICABLE REQUIREMENTS - #20, 46, 57, 58, 66, 67, FWG1-11, CG1-9, 80, 108, 110 – Grinding/Sanding/Routing

Limitations

The following are requirements from Conditions 8, 12, 25, 27, 31, 34, and 36 of the minor NSR permit issued on September 20, 2005:

Condition 8 requires that particulate emissions be controlled by dry filters or baghouses.

Condition 12 requires that the facility provide for testing ports as necessary.

Condition 25 limits emissions to:

PM/PM10	30.1 lb/hr	18.4 tons/yr
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Condition 27 limits visible emissions to 5% opacity.

Condition 31 requires that records of material throughput to this operation be kept to show compliance.

Condition 34 requires that notification be provided for malfunctions of processing or control equipment that may cause excess emissions for more than one hour.

Condition 36 requires maintenance schedules, spare parts inventory, written operating procedures, and operator training records for control and process equipment affecting emissions.

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-50-10 – 50 contain general requirements for proper operation, maintenance, recordkeeping, notification, and compliance.

9 VAC 5-50-80 and 290, New Source Standard for Visible Emissions.
(see Streamlining discussion)

Monitoring

The monitoring requirements in Condition 31 of the NSR permit have been modified to meet Part 70 requirements.

The Title V permit contains a requirement to perform weekly visible emission evaluations (VEEs) on the fabric filter stacks. If visible emissions are present, a six-minute visible emission evaluation (VEE) must be performed according to 40 CFR 60, Appendix A, Method 9. If during the six minute period, any violations of the 5% opacity standard are noted, a one-hour VEE is required to demonstrate compliance with the standard. The one-hour VEE is not required if the source of excess visible emissions is corrected and returned to no visible emissions in a timely manner. This will satisfy the periodic monitoring requirement for the visible emission limitation included in the permit.

Compliance with the particulate matter emissions limits may be demonstrated by properly maintaining the controls for the emission units, and by conducting the above weekly visible emission evaluations.

The company reports that grinding booth #108 has been removed from the facility, and will not be used in the future. However, since the current minor NSR permit contains requirements for this operation, the Title V permit will also contain these requirements.

CAM requirements apply to individual pollutant specific emission units. For this operation, there are multiple such units to which CAM may apply. Condition 25 of the current minor NSR permit establishes PM10 emission limits for multiple units that were permitted at different times. Based on the estimates underlying these emission limits, the entire operation produces less than 100 T/yr in potential pre-controlled emissions (using 80% control from fiberglass filters):

$$(18.4 \text{ tons/yr}) / (1 - 0.8) = 92 \text{ T/yr pre-controlled emissions of PM10}$$

Even if the control efficiency is higher, the potential pre-controlled emissions per unit are less than the threshold. Therefore, CAM requirements do not apply to grinding/sanding operations.

Recordkeeping

The Title V permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include hourly, monthly, and annual material balance for the routing, grinding, and sanding operations, and the results of the visible emission evaluations.

Testing

The Title V permit does not require source tests. A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

The company is required to provide notification for malfunctions of processing or control equipment that may cause excess emissions for more than one hour. An annual compliance certification is required of all Title V permit holders.

Streamlined Requirements

9 VAC 5-50-80 and 9 VAC 5-50-290 contain opacity requirements of 20% for new sources. Since Condition 27 of the NSR permit requires 5% opacity, it is more stringent and streamlining is appropriate. The Title V permit will require 5% opacity limits for the grinding/sanding/routing equipment.

EMISSION UNIT APPLICABLE REQUIREMENTS - #27 – Flame/Metal Arc Spray Booth

Limitations

The following are requirements from Conditions 8, 11, 12, 18, 19, 27, 31, 34, and 36 of the minor NSR permit issued on September 20, 2005:

Condition 8 requires that particulate emissions be controlled by dry filters or baghouses.

Condition 11 requires that the booth be equipped with differential pressure monitoring devices.

Condition 12 requires that the facility provide for testing ports as necessary.

Condition 18 limits metal throughput to the flame spray operation to 10 lb/hr and 4 tons/yr.

Condition 19 limits metal throughput to the arc spray operation to 4 lb/hr and 0.5 tons/yr.

Condition 27 limits visible emissions to 5% opacity.

Condition 31 requires that monthly and annual records of metal throughput to the flame and arc spray operations be kept.

Condition 34 requires that notification be provided for malfunctions of processing or control equipment that may cause excess emissions for more than one hour.

Condition 36 requires maintenance schedules, spare parts inventory, written operating procedures, and operator training records for control and process equipment affecting emissions.

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-40-260, Standard for Particulate Matter - Process Weight Rate Table

In the absence of an emission limitation established under 9 VAC 5 Chapter 50, standards of 9 VAC 5 Chapter 40 apply. Since this unit has no particulate matter emission limitation established under 9 VAC 5 Chapter 50, particulate matter standards for general processes apply. Particulate matter emissions from general processes are not to exceed corresponding quantities given by:

$$E = 4.10 P^{0.67}, \text{ where } P \text{ is the process weight rate.}$$

For the flame spray operation, the maximum process weight rate is 600 lb/hr, and the corresponding particulate matter emission rate is 1.83 lb/hr. For the arc spray operation, the maximum process weight rate is 4,000 lb/hr, and the corresponding particulate matter emission rate is 6.52 lb/hr.

9 VAC 5-50-10 – 50 contain general requirements for proper operation, maintenance, recordkeeping, notification, and compliance.

9 VAC 5-50-80 and 290, New Source Standard for Visible Emissions.
(see Streamlining discussion)

Monitoring

The monitoring and recordkeeping requirements in Condition 31 of the NSR permit have been modified to meet Part 70 requirements.

The Title V permit contains a requirement to perform weekly visible emission evaluations (VEEs) on the booth stacks. If visible emissions are present, a six-minute visible emission evaluation (VEE) must be performed according to 40 CFR 60, Appendix A, Method 9. If during the six minute period, any violations of the 5% opacity standard are noted, a one-hour VEE is required to demonstrate compliance with the standard. The one-hour VEE is not required if the source of excess visible emissions is corrected and returned to no visible emissions in a timely manner. This will satisfy the periodic monitoring requirement for the visible emission limitation included in the permit.

The spray booth is equipped with a pressure drop measuring device to indicate that filtration devices are present and operating properly.

The January 13, 1994 NSR permit analysis estimates particulate matter emissions from the Flame Spray operation using 85% control and 85% transfer of metal at:

$$(10 \text{ lb/hr})(1-0.85)(1-0.85) = 0.23 \text{ lb/hr}$$

The December 19, 1997 NSR permit analysis estimates particulate matter emissions from the Arc Spray operation using 50% transfer and 85% control at:

$$(4 \text{ lb/hr})(1-0.5)(1-0.85) = 0.3 \text{ lb/hr}$$

According to these estimates, particulate matter emissions from these operations are expected to be well below the general process weight rate emission standards given by 9 VAC 5-40-260, as long as the process and control equipment is maintained and the limitations on material

throughput are not exceeded. In order to show compliance at all process rates, the company will be required to record the process weight rates, calculate the emission standard from the formula above, and verify emissions from material consumption, transfer efficiencies, and control efficiencies.

Since pre-controlled emissions cannot exceed the permitted material throughput limitations, they cannot exceed 4.5 tons per year of total metal while operating as either flame or arc spray system. Therefore, CAM requirements do not apply to the unit.

Recordkeeping

The Title V permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include hours of operation, hourly, monthly, and annual material balance for metal throughput, visible emission evaluation results, and emissions for the booth.

Testing

The Title V permit does not require source tests. A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

The company is required to provide notification for malfunctions of processing or control equipment that may cause excess emissions for more than one hour. An annual compliance certification is required of all Title V permit holders.

Streamlined Requirements

9 VAC 5-50-80 and 9 VAC 5-50-290 contain opacity requirements of 20% for new sources. Since Condition 27 of the NSR permit requires 5% opacity, it is more stringent and streamlining is appropriate. The Title V permit will require a 5% opacity limit for the booth.

EMISSION UNIT APPLICABLE REQUIREMENTS - #6, 7, 9, 11, 12, 13, 14, 21, 32, and 80 – Shelter Coating; #22, 23, 63, 65, 69a&b – Composite Coating; #96-98 - Resin Transfer Molding; #108 & 109 – Armor Plate;

Limitations

The following are requirements from Conditions 4, 5, 6, 10, 11, 12, 20, 21, 22, 27, 29, 31, 34, and 36 of the minor NSR permit issued on September 20, 2005:

Condition 4 requires particulate matter emissions from tactifier booths be controlled by fiberglass filters or equivalent.

Condition 5 requires that particulate matter emissions from shelter coating be controlled by paper filters or equivalent.

Condition 6 requires that particulate matter emissions from composite coating be controlled by 2-stage filters that comply with MACT GG.

Condition 10 requires that VOC emissions be minimized during cleaning by work practices.

Condition 11 requires that booths be equipped with differential pressure monitoring devices.

Condition 12 requires that the facility provide for testing ports as necessary.

Condition 20 limits production of armor plates to 9,600 tons per year.

Condition 21 limits emissions from the resin transfer molding, armor plate, and shelter and composites coating operations to:

VOC	916.26 lb/hr	239.51 tons/yr
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(This limit includes emissions from booths and several non-point sources including paint mixing operations, paint drying operations, surface preparation, resin molding/curing, and a solvent-degreasing unit.)

Condition 22 limits PM/PM10 emissions from shelter and composites coating operations and resin transfer molding operations to:

PM/PM10	4.17 lb/hr	3.11 tons/yr
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Condition 27 limits visible emissions to 5% opacity.

Condition 29 requires the company to meet MACT GG requirements for aerospace coating operations.

Condition 31 requires records to be kept of material consumption, MSDS, hours of operation, hourly, monthly and annual material balance of throughput and emissions for each pollutant.

Condition 34 requires that notification be provided for malfunctions of processing or control equipment that may cause excess emissions for more than one hour.

Condition 36 requires maintenance schedules, spare parts inventory, written operating procedures, and operator training records for control and process equipment affecting emissions.

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-50-10 – 50 contain general requirements for proper operation, maintenance, recordkeeping, notification, and compliance.

9 VAC 5-50-80 and 290, New Source Standard for Visible Emissions
(see streamlining discussion)

The following federal regulations that have specific emission requirements have been determined to be applicable:

40 CFR 63.1-15 – Subpart A, General Provisions contains general requirements applicable to MACT sources. These requirements apply to the composites coating operations.

40 CFR 63.741-759, Subpart GG – National Emission Standards for Hazardous Air Pollutants for Aerospace Manufacturing and Rework Facilities applies to the composites coating operations (primer and topcoat) and resin transfer molding, but not to shelter coating operations or armor plate production. The requirements of this subpart include work practice standards for topcoats, primers, cleaners, and control devices. These requirements do not apply to tactifier booths #96 – 97.

40 CFR 63.3880-3981, Subpart MMMM – National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products applies to the shelter coating operations. According to the company, they only apply coatings that fall under the general use category.

Monitoring

The monitoring requirements in Condition 31 of the NSR permit have been modified to meet Part 70 requirements.

The Title V permit contains a requirement to perform weekly visible emission evaluations (VEEs) on the spray booth stacks. If visible emissions are present, a six-minute visible emission evaluation (VEE) must be performed according to 40 CFR 60, Appendix A, Method 9. If during the six minute period, any violations of the 5% opacity standard are noted, a one-hour VEE is required to demonstrate compliance with the standard. The one-hour VEE is not required if the source of excess visible emissions is corrected and returned to no visible emissions in a timely manner. This will satisfy the periodic monitoring requirement for the visible emission limitation included in the permit.

No opacity checks are necessary for the sealer booths associated with the armor plate operation. These booths do not spray material. Coating is applied by roller, producing no particulate matter emissions.

All spray booths are required to be equipped with devices to measure the differential pressure drop across the filters.

The company reports that the Armor Plate line (Ref. # 108 & 109) and spray booth #32 have been removed from the site. However, since there are requirements for these units in the current minor NSR permit, these requirements will also appear in the Title V permit.

The VOC emissions from aerospace composites coating operations, metal parts coating operations, resin transfer molding, and armor plate production are limited by total VOC and PM/PM10 emission limits in the NSR permit, and are tracked by material balance calculations using VOC and solids content of the materials. With respect to aerospace coating and resin molding transfer operations, MACT Subpart GG (40 CFR 63.750(e)(1)) allows the use of “manufacturer’s supplied data or Method 24” to determine VOC content. Due to the large number of potential coatings and materials used at this facility (400+), the Title V permit will

contain provisions which require the company or coating supplier to determine VOC content by EPA approved methods if the actual annual VOC emissions exceed 75% of the emission limit. Should this occur, the company must test each coating material used on a quarterly basis to determine VOC content. If emissions are less than 75% of the emission limit for three consecutive months, testing may be discontinued.

MACT Subpart GG requires that aerospace coating booths be continuously monitored for pressure drop across the particulate matter control system. The pressure drop must be recorded once per shift. Also, monthly visual leak inspections are required for the enclosed spray gun cleaners.

Tactifier booths are controlled by single-stage fiberglass filters and are not subject to MACT Subpart GG.

MACT MMMM applies to the shelter coating operations, including storage and mixing containers. The regulation requires no specific monitoring practices for sources not utilizing add-on control devices. The company will have to keep records and perform calculations to demonstrate compliance with the emission standards. The regulation was recently promulgated, and therefore contains monitoring sufficient to meet periodic monitoring requirements.

Since VOC emissions from the coating operations are not controlled, CAM requirements do not apply. PM10 emissions are controlled by filters providing up to 99% removal efficiency. CAM requirements would apply to individual units with pre-control emissions that are greater than 100 tons per year. Using the emission limits in Condition 22 as a basis, the worst case is given by,

$$(3.11 \text{ T/yr})/(1-0.99) = 311 \text{ T/yr pre controlled}$$

Since this potential is spread over many units, pre-controlled emissions per unit is less than 100 tons per year, and CAM requirements do not apply.

Recordkeeping

The Title V permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include annual material consumption; MSDS information on materials used; hourly, monthly, and annual material balance of VOC and PM/PM10 throughput and emissions; results of visible emission evaluations; results of VOC content testing; daily hours of operation; and shipped waste materials. The permit also includes the requirement to maintain records of weekly visible emissions evaluations. Emission calculations are based on material usage, VOC and solids contents, and appropriate particulate matter control and transfer.

MACT Subpart GG contains requirements to record information about primers and topcoats used in applying aerospace coatings, such as; name, VOC/HAP contents, monthly usage, certifications or test results showing VOC/HAP contents, and pressure drop across the control device once per shift. Records of leaks and repairs are required for spray gun cleaning. Records of flush cleaning solvents include the name of the solvent, volumes used, and supporting calculations. Records of hand-wipe cleaning operations include names of cleaners, monthly or annual volumes used, vapor pressures, and test results or calculations used to show compliance with the applicable standards.

MACT MMMM requires the company to keep records of manufacturer's data for each category of coating material, volumes of coating materials consumed, various calculations related to HAP and solids contents in each coating material, testing results, notifications, deviations, and waste disposal information.

Testing

The Title V permit does not require source tests. A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

MACT GG requires that specific testing procedures or manufacturers data be used to determine VOC and HAP content in aerospace primers and topcoats. Dry particulate filter certification will be made using EPA Method 319. Also, the composition of hand-wipe cleaning solutions must be determined by approved methods.

MACT MMMM provides for testing in order to determine coating material density (for sources complying without add-on controls) if supplier information is not available. No other specific testing is required unless add-on controls are used.

If actual VOC emissions exceed 75% of the VOC emission limit, the VOC content of coating materials used must be determined on a quarterly basis using EPA approved methods (e.g. Method 24).

Reporting

The Aerospace Coating MACT (GG) requires reporting various data for topcoats, primers, and cleaners on a semiannual basis. They include identification of instances where HAP and VOC limits are exceeded, instances where control device exceedances occur, instances where pressure drop is outside limits, compliance certifications, leaks from enclosed spray gun cleaners not repaired within 15 days, and noncompliant spray gun cleaning methods are used. Annual reports of filter pressure drop limit exceedances are required for primer/topcoat booths.

MACT GG also requires that an annual report be submitted. In accordance with 40 CFR 63.10(a)(5), this date can correspond to due dates established for other reports that cover the same time period. The Title V permit requires, in Condition XII.D, that an annual compliance certification be submitted by March 1 of each year. Therefore, in accordance with 40 CFR 63.10(a)(5), the due date for the annual report required in the MACT has been changed to March 1 of each year.

MACT MMMM (40 CFR 60.3920) requires submission of a semiannual report detailing compliance information including any deviations during the reporting period.

Semiannual reports are required by both MACT regulations. The company desires that all MACT reports coincide with the other reports required by the Title V permit. As discussed above, 40 CFR 63.10 (a)(5) gives states the authority to allow the reports to cover the same reporting periods (January 1 – June 30; July 1 – December 31) and submission dates (March 1 and September 1) as the general monitoring report required for Title V sources. The company made a written request, and DEQ responded with an approval that was forwarded to EPA.

The company is required to provide notification for malfunctions of processing or control equipment that may cause excess emissions for more than one hour. An annual compliance certification is required of all Title V permit holders.

Streamlined Requirements

9 VAC 5-50-80 and 9 VAC 5-50-290 contain opacity requirements of 20% for new sources. Since Condition 27 of the NSR permit requires 5% opacity, it is more stringent and streamlining is appropriate. The Title V permit will require 5% opacity limits for the booths.

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

Included in this section are requirements of Conditions 12 and 32-39 of the minor NSR permit issued on September 20, 2005. These conditions explain state requirements and authority to inspect the facility and suspend the permit should conditions warrant. They require the facility to be constructed in order to allow for emissions testing, should it be necessary. The conditions also identify the company's responsibility to provide emissions data to the Department, to reduce activity to avoid violating ambient standards, and to keep a copy of the Title V permit on-site.

Comments on General Conditions

B. Permit Expiration

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.1-20.01:2 and §10.1-1185 of the *Code of Virginia*, and the "Department of Environmental Quality Agency Policy Statement No. 3-2006".

This general condition cites the sections that follow:

9 VAC 5-80-80. Application

9 VAC 5-80-140. Permit Shield

9 VAC 5-80-150. Action on Permit Applications

F. Failure/Malfunction Reporting

Section 9 VAC 5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four daytime business hours of discovery of the malfunction.

L. Permit Modification

This general condition cites the sections that follow:

9 VAC 5-80-50. Applicability, Federal Operating Permit For Stationary Sources

9 VAC 5-80-190. Changes to Permits.

9 VAC 5-80-260. Enforcement.

9 VAC 5-80-1100. Applicability, Permits For New and Modified Stationary Sources

9 VAC 5-80-1790. Applicability, Permits For Major Stationary Sources and Modifications

Located in Prevention of Significant Deterioration Areas

9 VAC 5-80-2000. Applicability, Permits for Major Stationary Sources and Major Modifications

Locating in Nonattainment Areas

W. Malfunction as an Affirmative Defense

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition W and General Condition F. For further explanation see the comments on General Condition F.

AA. Asbestos Requirements

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

This general condition contains a citation from the Code of Federal Regulations that follow:

40 CFR 61.145, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to demolition and renovation.

40 CFR 61.148, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to insulating materials.

40 CFR 61.150, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to waste disposal.

STATE ONLY APPLICABLE REQUIREMENTS

9 VAC 5-40-130 – 160 pertaining to odor are state-only enforceable requirements. As such, they are not included in the Title V permit.

FUTURE APPLICABLE REQUIREMENTS

MACT requirements are continuously under review and additional requirements could apply in the future.

MACT Subpart DDDDD for commercial, industrial, and institutional boilers has been vacated by federal court. States and EPA are in the process of determining options by which standards may be established and compliance may be determined.

No other specific future applicable requirements are known at this time.

INAPPLICABLE REQUIREMENTS

40 CFR 60 (NSPS), Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units – applies to boilers with input heat capacity greater than 10 MMBtu/hr and less than 100 MMBtu/hr constructed or modified after June 9, 1989. Both boilers at the facility were constructed prior to this date.

40 CFR 60 (NSPS), Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984 – applies to storage tanks much larger than those at this facility. It is therefore inapplicable.

40 CFR 60 (NSPS), Subpart VVV – Standards of Performance for Polymeric Coating of Supporting Substrates Facilities – applies to facilities constructed after April 30, 1987 that are engaged in applying coatings to fabrics, paper, or other flexible materials. General Dynamics-Armament and Technical Products, Inc. has operated similar processes for the impregnation of resins on various fabrics to be used in the manufacture of composite materials (reference #40, 41, 49, & 81). However, the company installed these operations in the early 1970's, many years before the applicable date of Subpart VVV without subsequent modification. Therefore, the regulation does not apply.

40 CFR 60 (NSPS), Subpart FFFF – Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units That Commenced Construction On or Before December 9, 2004 – applies to very small municipal waste incinerators and institutional waste incinerator. Since it does not apply to industrial waste incinerator units, it does not affect the heat cleaning oven.

40 CFR 63, Subpart T – National Emission Standards for Halogenated Solvent Cleaning – applies to batch vapor degreasing units which use one of several chlorinated solvents after December 2, 1997. The company operates a batch vapor degreasing unit in the shelter fabrication and coating operation (identified in the permit application under reference #80), and filed an initial notification report with EPA Region III on August 22, 1995 identifying compliance options. The company switched solvents prior to the compliance date and notified EPA. The solvent that the company uses contains no chlorine, and the MACT therefore does not apply. Should the company change solvents in the future, this regulation may apply.

40 CFR 63, Subpart JJJJ - National Emission Standards for Paper and Other Web Coating – applies to coating paper, film, or other flexible webs. 40 CFR 63.3300 references flexible packaging and pressure sensitive tape and abrasive materials. Operations at the facility do not resemble those described. Composite materials are not flexible and fabrics become a structural component of the solid products.

40 CFR 63, Subpart MMMM - National Emission Standards for Miscellaneous Metal Parts and Products Coating – applies to metal finishing operations. 40 CFR 63.3881(c)(10)&(11) provide exclusions for aerospace coating of vehicles and components. Therefore, it does not apply to the composite coating operations. This subpart does, however, apply to other coating operations at the facility.

40 CFR 63, Subpart OOOO - National Emission Standards for Printing, Coating, and Dyeing of Fabric and Other Textiles – applies to coating or finishing fabrics. The company uses fabrics in their composite production operations. However, these activities reportedly do not involve HAP-containing materials. 40 CFR 63.4281(c) excludes those activities that do not involve the use of HAP-containing materials. The company currently qualifies for this exclusion.

40 CFR 63, Subpart PPPP – National Emission Standards for Surface Coating of Plastic Parts and Products – applies to coating of parts/products formed from resins. 40 CFR 63.4481(c)(11) excludes surface coating of plastic aerospace components that comply with 40 CFR 63, Subpart GG (aerospace manufacture and rework facilities).

40 CFR 63, Subpart WWWW - National Emission Standards for Reinforced Plastics Composites Production – applies to production of reinforced plastic composites using styrene-based materials. 40 CFR 63.5785(d) excludes operations that use less than 1.2 tons per year of resins or gel coats containing styrene. The company currently qualifies for this exclusion.

9 VAC 5 Chapter 40, Article 24 – Emission Standards for Solvent Metal Cleaning Operations Using Non-halogenated Solvents – applies to solvent metal cleaning operations located in VOC control areas of the state. This facility is not located in such an area.

9 VAC 5 Chapter 40, Article 25 - Emission Standards for Volatile Organic Compound Storage and Transfer Operations – applies to VOC storage and transfer operations located in VOC control areas of the state. This facility is not located in such an area.

9 VAC 5 Chapter 40, Article 34 - Emission Standards for Miscellaneous Metal Parts and Products Coating Application Systems – applies to metal coating operations located in VOC control areas of the state. This facility is not located in such an area.

9 VAC 5 Chapter 40, Article 45 - Emission Standards for Commercial/Industrial Solid Waste Incinerators - does not apply to the heat cleaning oven. The regulation specifically excludes rack, part, and drum reclamation units from applicability in 9 VAC 5-40-6250 C.11. This state regulation contains the requirements of NSPS Subpart DDDD pertaining to these units.

9 VAC 5 Chapter 60, Article 5 – Emission Standards for Toxic Pollutants from New and Modified Sources – a state-only enforceable rule that applies to sources not specifically excluded. One such exclusion is sources included in MACT categories. Since this source is included in the aerospace manufacturing category, among others, and is subject to MACT standards for HAPs, this regulation does not apply.

INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (5-80-720 B)	Rated Capacity (5-80-720 C)
8, 10, 15, 16, 17, 24, 25, 26, 28, 29, 30, 31, 34, 35, 36, 37, 38, 39, 42, 43, 44, 45, 47, 71, 72, 73, 74, 75, 106	Gas-fired Drying ovens and heaters	9 VAC 5-80-720 C 2.a.		< 10 MMBtu/hr
50, 51, 52, 53, 54, 55, 56, 94, 99-105	Electric ovens and heaters	9 VAC 5-80-720 A.6 & 39		
59, 60, 62, 64, 68, 86	Steam ovens and dryers	9 VAC 5-80-720 A.39		
82, 83, 85	Vacuum Pumps	9 VAC 5-80-720 B	VOC	
48	Ignition Loss Burnout oven	9 VAC 5-80-720 A.28		
70	Lab spray booth	9 VAC 5-80-720 A.28		
89	Diesel Storage Tank	9 VAC 5-80-720 A.41		
90	Diesel fire-suppression engine	9 VAC 5-80-720 C 4.b		< 645 Hp
107	Various grinding, buffing, trimming	9 VAC 5-80-720 B	PM	
Shop Vacs	Shop Vacuum Cleaners	9 VAC 5-80-720 A.50		

¹The citation criteria for insignificant activities are as follows:

9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application

9 VAC 5-80-720 B - Insignificant due to emission levels

9 VAC 5-80-720 C - Insignificant due to size or production rate

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

The proposed permit was placed on public notice in the *Smyth County News & Messenger* from September 22, 2007 to October 22, 2007. No comments were received. EPA review extended through November 6, 2007 with no comments received.